

**PROPERTY INFORMATION**

DATE:	10-01-2018
OWNER:	JOHN MCGEE (201) 487-6196
SITE ADDRESS:	4750 194TH ST SW LYNNWOOD, WA 98036
TAX PARCEL NUMBER:	XXX-XXXXXXXXXX
ZONING:	R6
PROPERTY USE:	SINGLE-FAMILY
LOT SIZE:	4,800 SF

**BUILDING CODES**

WITH STATE AMENDMENTS  
 20\_\_ INTERNATIONAL BUILDING CODE  
 20\_\_ INTERNATIONAL RESIDENTIAL CODE

**\*LOT COVERAGE NOTE**

DECK, STAIRS AND LANDING MAY BE EXCLUDED FROM THE LOT COVERAGE. DETERMINING FACTORS INCLUDE DECK HEIGHT, SPACING BETWEEN DECK BOARDS AND IF THERE IS OPEN LOOSE SOIL BENEATH THE DECK. CONSULT THE CITY BUILDING OFFICIAL.

**PROPOSED PROJECT**

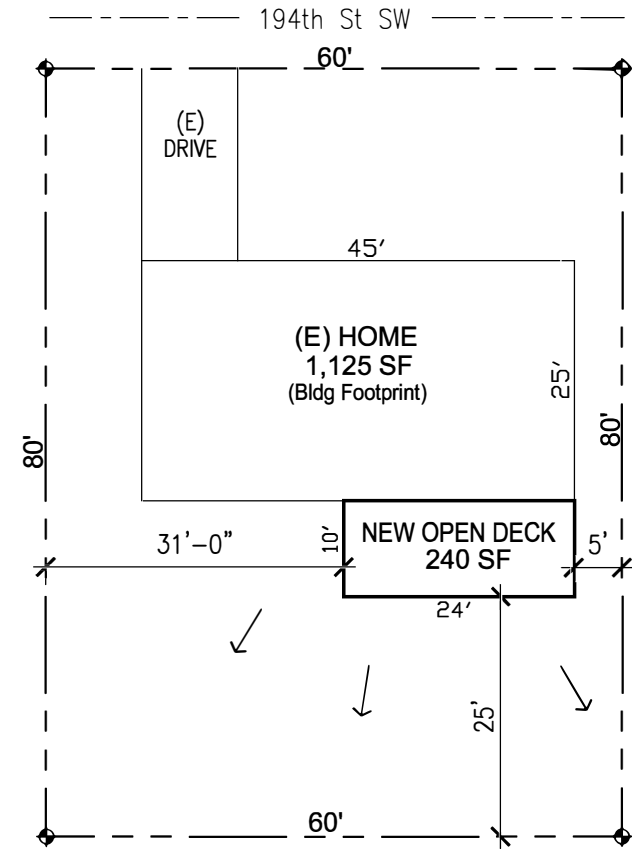
A NEW 240 SF (10'x24') OPEN DECK WITH STAIRWAY LANDING AND GUARDRAILS.  
 (SEE GUARDRAIL NOTE BELOW)

**LOT COVERAGE\***

LOT AREA:	4,800 SF
RESIDENCE	1,125 SF
OPEN DECK:	240 SF
STAIRWAY & LANDING:	60 SF
TOTAL LOT COVERED:	1,425 SF
LOT COVERAGE (1,425/4,800):	30%

**GUARDRAIL NOTE**

GUARDRAILS ARE REQUIRED FOR DECK FLOORS AND LANDINGS THAT ARE MORE THAN 30" ABOVE GRADE AT ANY POINT WITHIN 36" OF THE EDGE OF THE WALKING SURFACE (IRC R312.1.1).



**SITE PLAN**  
 1" = 20'-0"

**SHEET INDEX**

CS	COVER SHEET
2	DECK SPAN TABLES
3	DECK ELEVATION
4	PLAN VIEW
5	LEDGER ATTACHMENT
6	GUARD POST, GUARDRAIL, KNEE BRACE FRAMING
7	EXTERIOR STAIRS
8	STAIR HANDRAIL & GUARD

**CS | COVER SHEET.**

SPAN TABLE & FOOTING SCHEDULE FOR DECKS											
THIS TABLE REFLECTS THE CODE REQUIREMENTS OF THE 2015 IRC WITH WASHINGTON STATE AMENDMENTS WHICH UPDATED THE LIVE LOAD TO 60 PSF. (TABLE R301.5)											
SPANS AND FOOTINGS ASSUME THE MAXIMUM 24" CANTILEVER USING HEM-FIR/DOUGLAS FIR NO. 2 OR BETTER FRAMING LUMBER. TABLE USES 70 PSF LOADING (10 PSF DEAD LOAD + 60 PSF LIVE LOAD) AND 2,000 PSF SOIL BEARING PRESSURE.											
JOIST SIZE	Joist Spacing	Max. Joist Span	Girder Beam Size and Max. Span Between Support Posts / Footing Type								
			4x6	Footing	4x8	Footing	4x10	Footing	4x12	Footing	
2x6	12" o.c.	7'-5"	5'-11"	14x14	7'-9"	16x16	9'-6"	18x18	11'-1"	18x18	
	16" o.c.	6'-9"	5'-11"	14x14	7'-9"	16x16	9'-6"	18x18	11'-1"	18x18	
	24" o.c.	5'-9"	6'-3"	14x14	8'-9"	16x16	11'-0"	18x18	12'-10"	18x18	
2x8	12" o.c.	9'-7"	4'-11"	14x14	6'-6"	16x16	8'-3"	18x18	10'-0"	20x20	
	16" o.c.	8'-8"	4'-11"	14x14	6'-6"	16x16	8'-3"	18x18	10'-0"	18x18	
	24" o.c.	7'-7"	5'-11"	14x14	7'-9"	16x16	9'-6"	18x18	11'-1"	18x18	
2x10	12" o.c.	13'-3"	3'-6"	14x14	4'-8"	16x16	5'-11"	18x18	7'-2"	18x18	
	16" o.c.	11'-6"	4'-1"	14x14	5'-5"	16x16	6'-11"	18x18	8'-5"	20x20	
	24" o.c.	9'-5"	4'-11"	14x14	6'-6"	16x16	8'-3"	18x18	10'-0"	20x20	
2x12	12" o.c.	15'-5"	3'-1"	14x14	4'-1"	16x16	5'-2"	18x18	6'-3"	18x18	
	16" o.c.	13'-4"	3'-6"	14x14	4'-8"	16x16	5'-11"	18x18	7'-2"	18x18	
	24" o.c.	10'-11"	4'-1"	14x14	5'-5"	16x16	6'-11"	18x18	8'-5"	18x18	

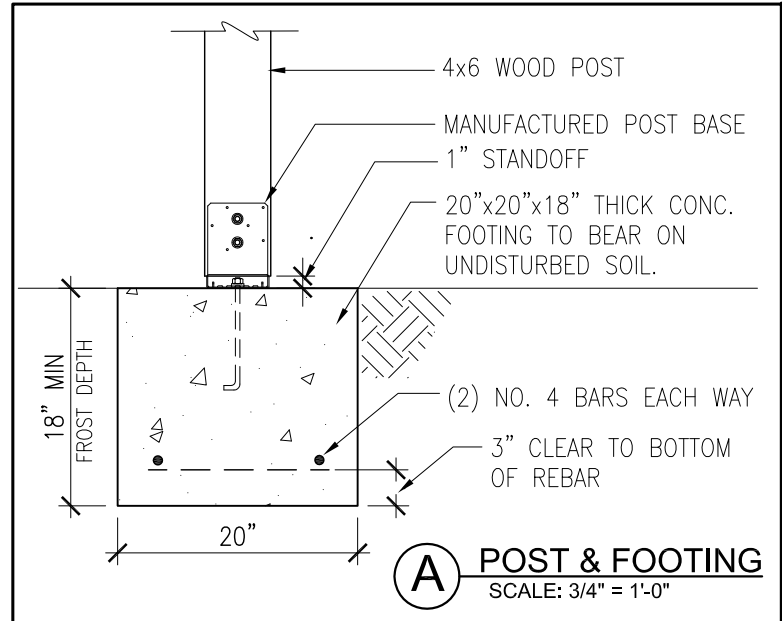
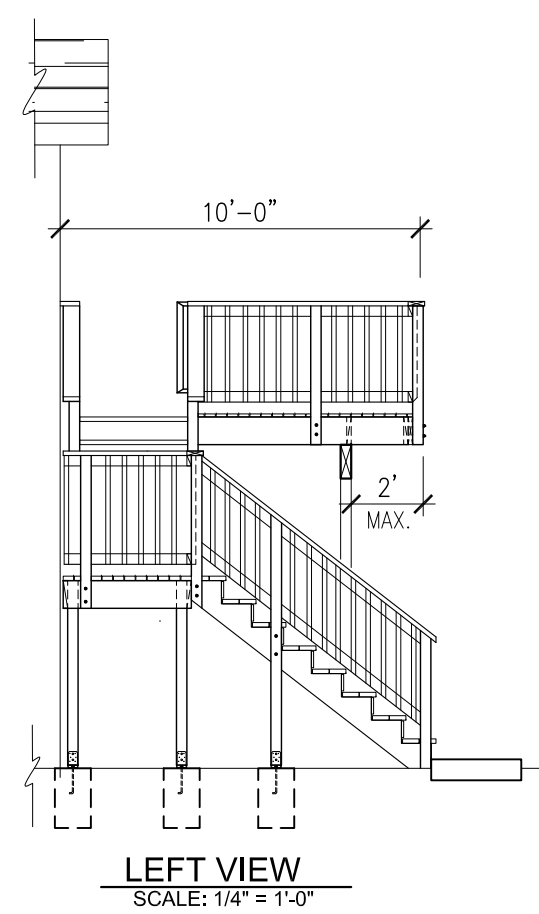
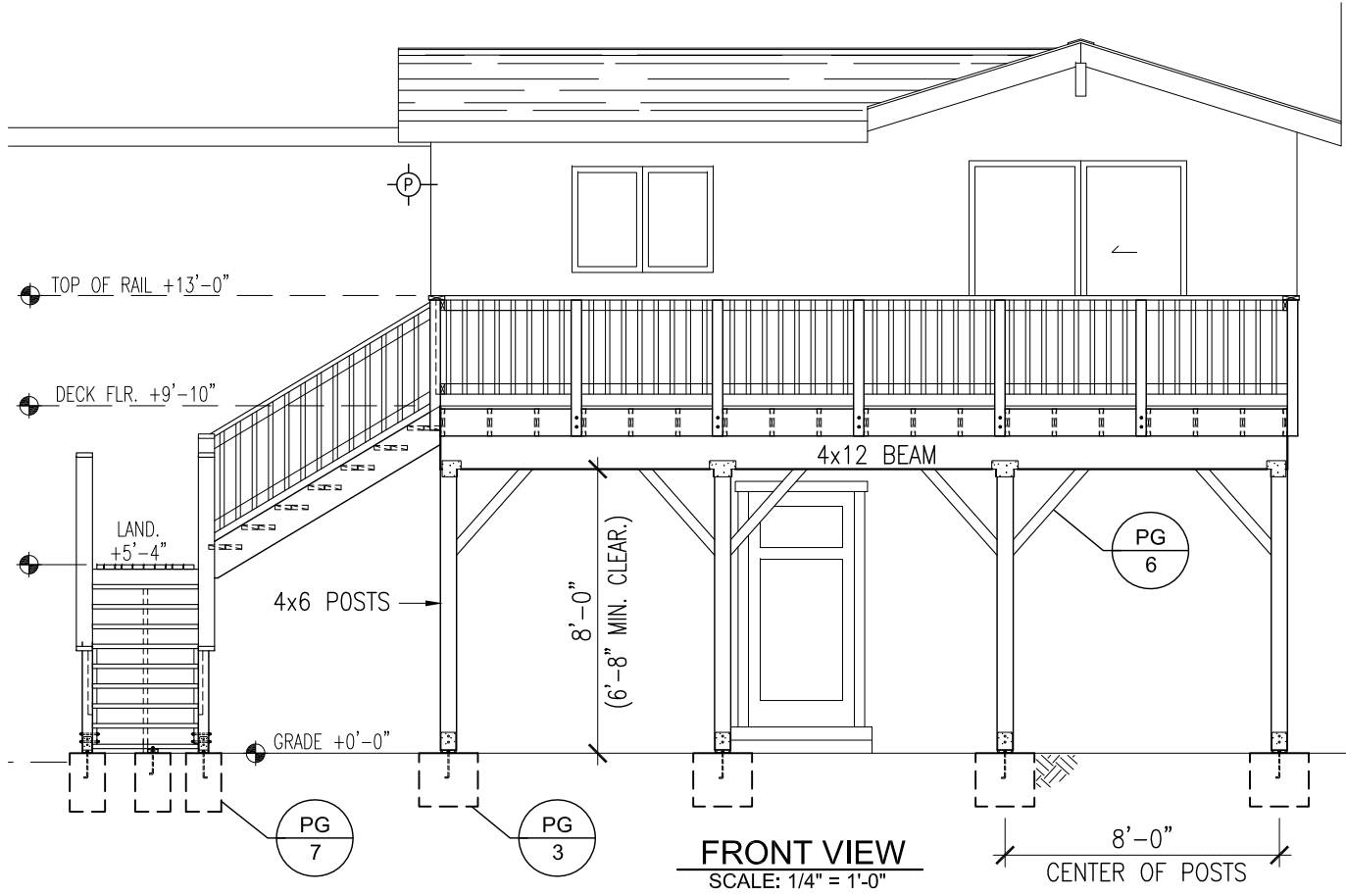
MAXIMUM JOIST SPACING (TABLE R507.4)		
MATERIAL TYPE AND NOMINAL SIZE	PERPENDICULAR TO JOIST	DIAGONAL <sup>a</sup> TO JOIST
1-1/4" THICK WOOD	16 INCHES	12 INCHES
2" THICK WOOD	24 INCHES	16 INCHES
PLASTIC COMPOSITE	IN ACCORDANCE WITH SECT. R507.3	IN ACCORDANCE WITH SECT. R507.3

DECK POST HEIGHT <sup>a</sup>	
FOR SINGLE-LEVEL WOOD-FRAMED DECKS (TABLE R507.8)	
DECK POST SIZE	MAX. HEIGHT <sup>a</sup>
4 X 4	8'
4 X 6	8'
6 X 6	14'

(a) MEASURED TO THE UNDERSIDE OF THE BEAM.

**DECK POST TO DECK FOOTING**  
 POSTS SHALL BEAR ON FOOTINGS IN ACCORDANCE WITH SECTION R403 AND FIGURE R507.8.1 OF THE IRC. POSTS SHALL BE RESTRAINED TO PREVENT LATERAL DISPLACEMENT AT THE BOTTOM SUPPORT. SUCH LATERAL RESTRAINT SHALL BE PROVIDED BY MANUFACTURED CONNECTORS INSTALLED IN ACCORDANCE WITH SECTION R507 AND MANUFACTURERS' INSTRUCTIONS OR A MINIMUM POST EMBEDMENT OF 12 INCHES IN SURROUNDING SOILS OR CONCRETE PIERS (R507.8.1).

(a) MAXIMUM ANGLE 45 DEGREES FROM PERPENDICULAR FOR WOOD DECK BOARDS.

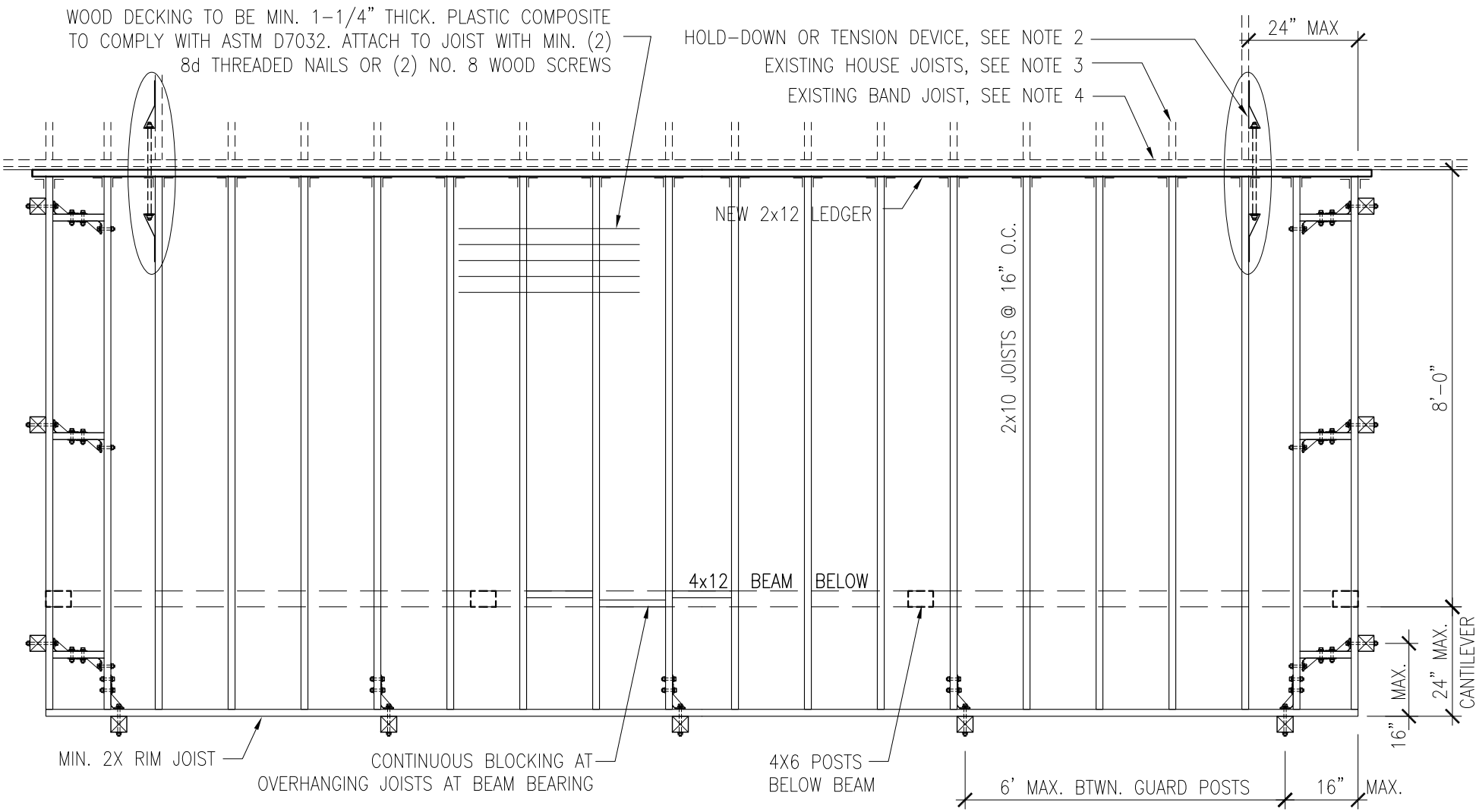


**FOR THIS PROJECT: 10' x 24' DECK**

Joist Size	Joist Spacing	Max. Joist Span	Girder Beam Size	Girder Beam Max. Span	Conc. Footing	Deck Post Size	Max. Ht.
2x10	16" o.c.	11'-6"	4x12	8'-5"	20"x20"	4x6	8'-0"

**DECK CONSTRUCTION NOTES (IRC SEC. R507)**

- 1) THE MINIMUM LIVE LOAD FOR EXTERIOR BALCONIES AND DECKS IS 60 PSF.
- 2) ALL WOOD MUST BE PRESSURE-TREATED OR NATURALLY RESISTANT TO DECAY. TREAT CUTS, HOLES AND NOTCHES WITH END-CUT SOLUTION. DECK POSTS SUPPORTED BY CONCRETE PIERS OR METAL PEDESTALS PROJECTING NOT LESS THAN 1" ABOVE A CONCRETE FLOOR OR 6" ABOVE EXPOSED EARTH ARE NOT REQUIRED TO BE PRESSURE-TREATED (R317.1.4).
- 3) FASTENERS, HANGERS, NAILS MUST BE STAINLESS STEEL, HOT-DIPPED GALVANIZED, OR AS SPECIFICALLY REQUIRED FOR THE WOOD PRESERVATIVE.
- 4) IF AN EXIT OR EGRESS FROM THE EXISTING BUILDING PASSES UNDER A PROPOSED DECK, OR IF THERE IS AN EXISTING PATIO, 6'-8" MINIMUM CLEARANCE MUST BE MAINTAINED.
- 5) EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH ILLUMINATION (R303.8).



**DECK LATERAL LOAD CONNECTION (IRC R507.2.4)**

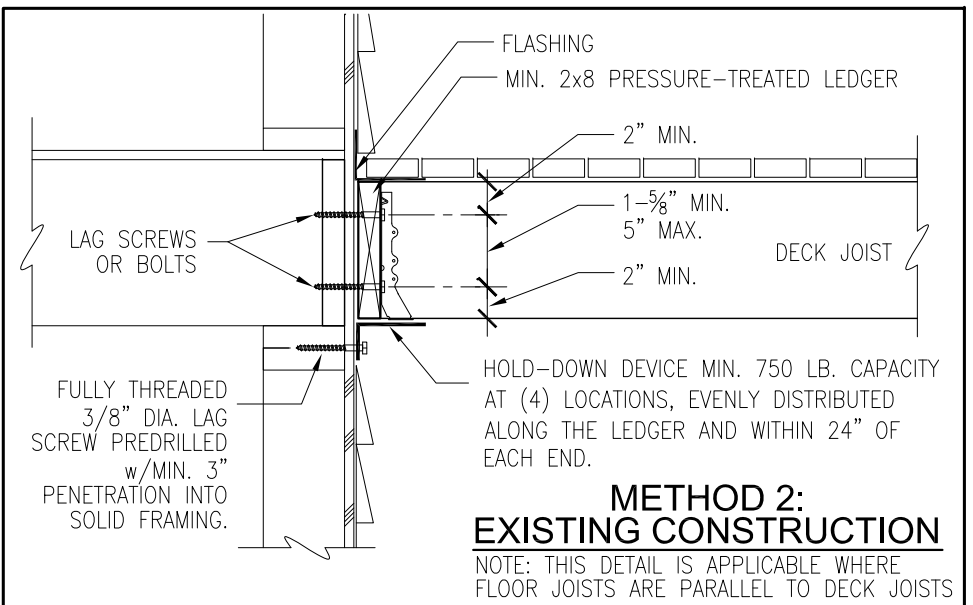
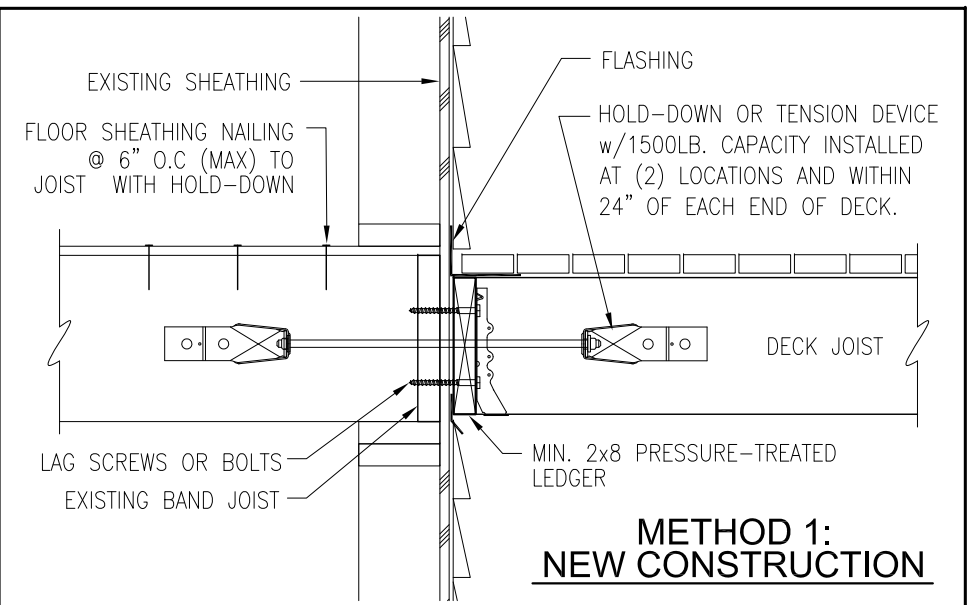
1) IF AN EXTERIOR WALL IS USED TO SUPPORT A DECK, THE DECK FRAMING MUST BE POSITIVELY ATTACHED TO THE BUILDING AND DESIGNED FOR BOTH VERTICAL AND LATERAL LOADS. DECKS NOT MORE THAN 30" ABOVE GRADE MAY BE UNATTACHED AND DO NOT REQUIRE THE LATERAL LOAD CONNECTION. WHERE POSITIVE CONNECTION TO THE BUILDING CANNOT BE VERIFIED DURING INSPECTION, DECKS SHALL BE SELF-SUPPORTING.

2) TWO OPTIONS FOR LATERAL CONNECTION ARE DESCRIBED AS FOLLOWS (DETAILS FOR BOTH METHODS ARE SHOWN ON "LEDGER ATTACHMENT" SHEET):  
METHOD 1: FOR NEW HOME CONSTRUCTION, A MINIMUM OF (2) HOLD-DOWN DEVICES SHALL BE INSTALLED WITHIN 24" OF EACH END OF THE DECK, WITH A DESIGN CAPACITY OF 1,500 LBS. ATTACHMENT TO I-JOIST SHOULD FOLLOW MANUFACTURER'S INSTRUCTIONS; BLOCKING OR WEB STIFFENERS MAY BE REQUIRED.  
METHOD 2: FOR NEW OR REPLACEMENT DECKS ON EXISTING HOMES, A MINIMUM OF (4) SURFACE-MOUNTED HOLD-DOWN DEVICES SHALL BE DISTRIBUTED ALONG THE LEDGER, WITH ONE LOCATED WITHIN 24" OF EACH END OF THE DECK. THE HOLD-DOWN MUST HAVE MINIMUM 750 LB CAPACITY.

3) IF HOUSE JOISTS RUN PERPENDICULAR TO DECK JOISTS, DESIGNER MUST SHOW BLOCKING BETWEEN EXISTING JOIST BAYS, NAIL ATTACHMENT OF BLOCKING TO EXISTING DECK AND THE EXTENT OF BLOCKING REQUIRED. DETAIL MUST ALSO SHOW HOLD-DOWN DEVICE, THREADED ROD OR SIMILAR TENSION DEVICE.

4) BAND JOIST SHALL BE A MINIMUM 2X, SOLID-SAWN, SPRUCE-PINE-FIR LUMBER OR A MINIMUM 1X9-1/4" DOUGLAS FIR, LAMINATED VENEER LUMBER. BAND JOIST SHALL BE FULLY SUPPORTED BY A WALL OR SILL PLATE BELOW.

**4 | PLAN VIEW**  
 SCALE: 3/8" = 1'-0"



**PLACEMENT OF LAG SCREWS & BOLTS IN LEDGERS & BAND JOISTS** (TABLE R507.2.1)

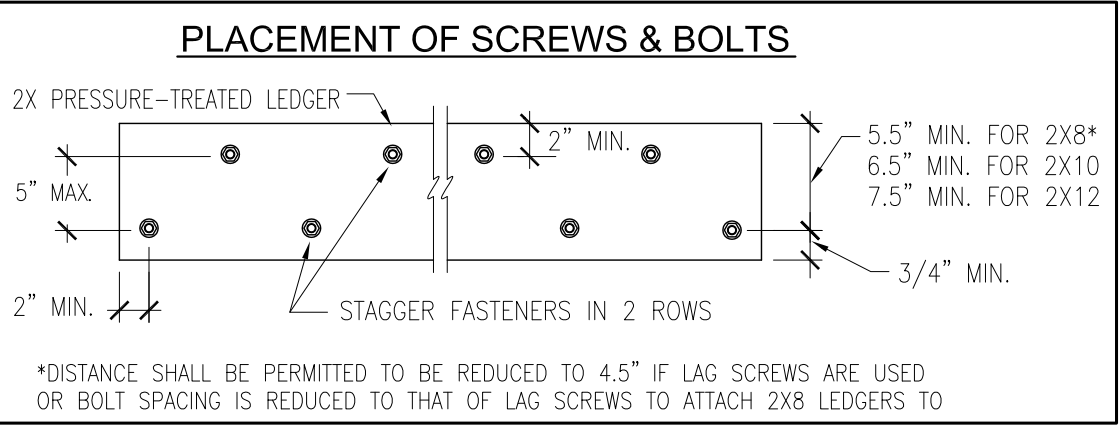
MINIMUM END AND EDGE DISTANCE AND SPACING BETWEEN ROWS				
	Top Edge	Bottom Edge	Ends	Row Spacing
<b>LEDGER<sup>d</sup></b>	2 inches <sup>d</sup>	3/4 inch	2 inches <sup>b</sup>	1-5/8 inches <sup>b</sup>
<b>BAND JOIST<sup>c</sup></b>	3/4 inch	2 inches <sup>e</sup>	2 inches <sup>b</sup>	1-5/8 inches <sup>b</sup>

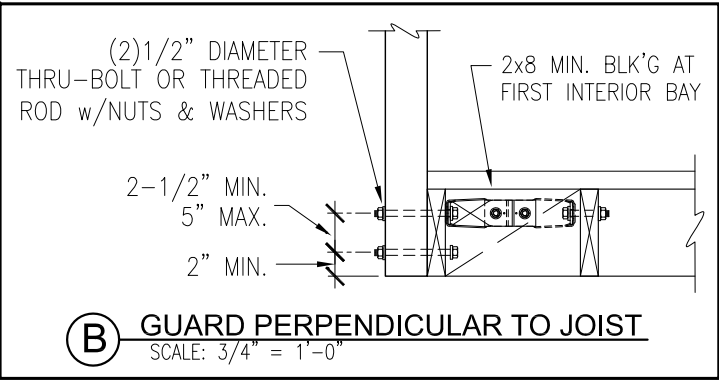
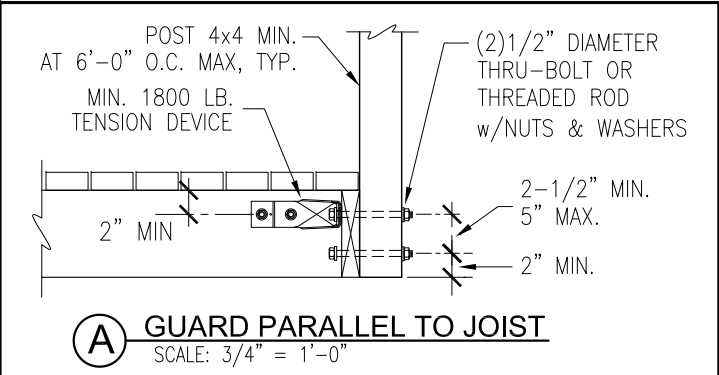
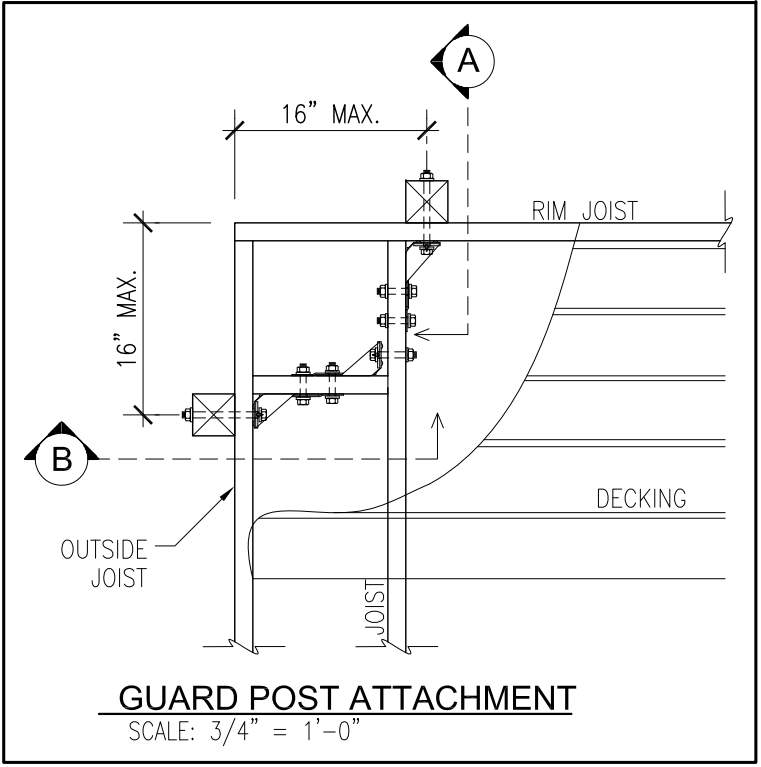
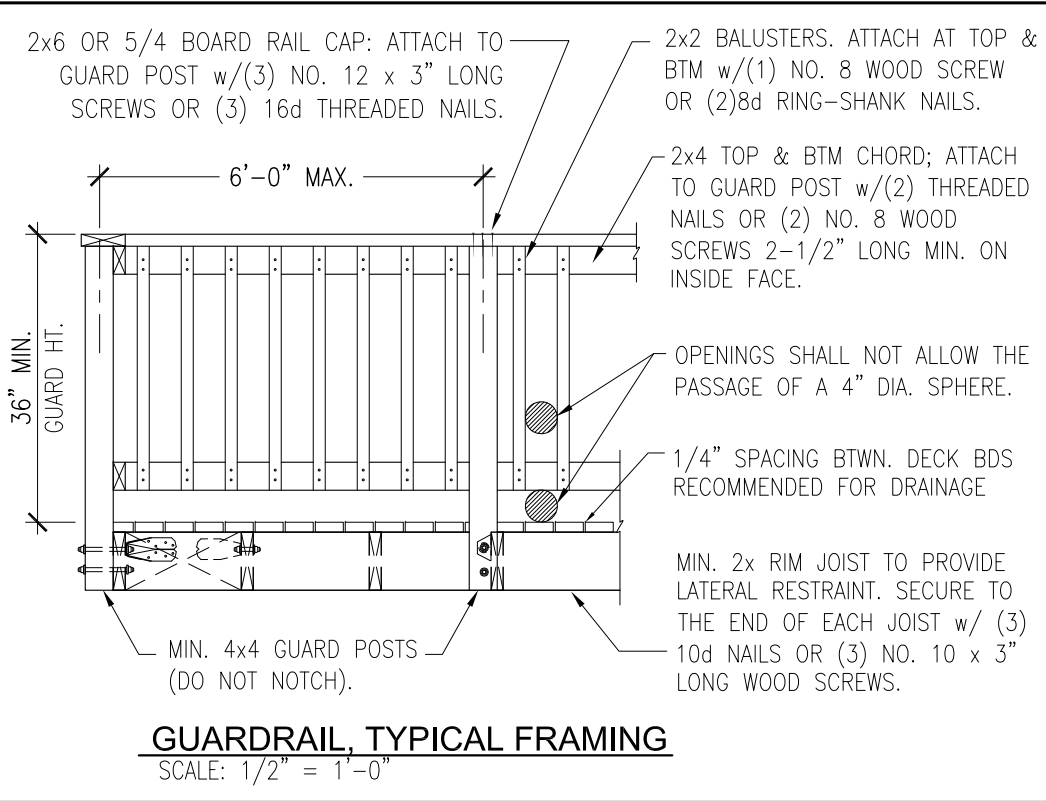
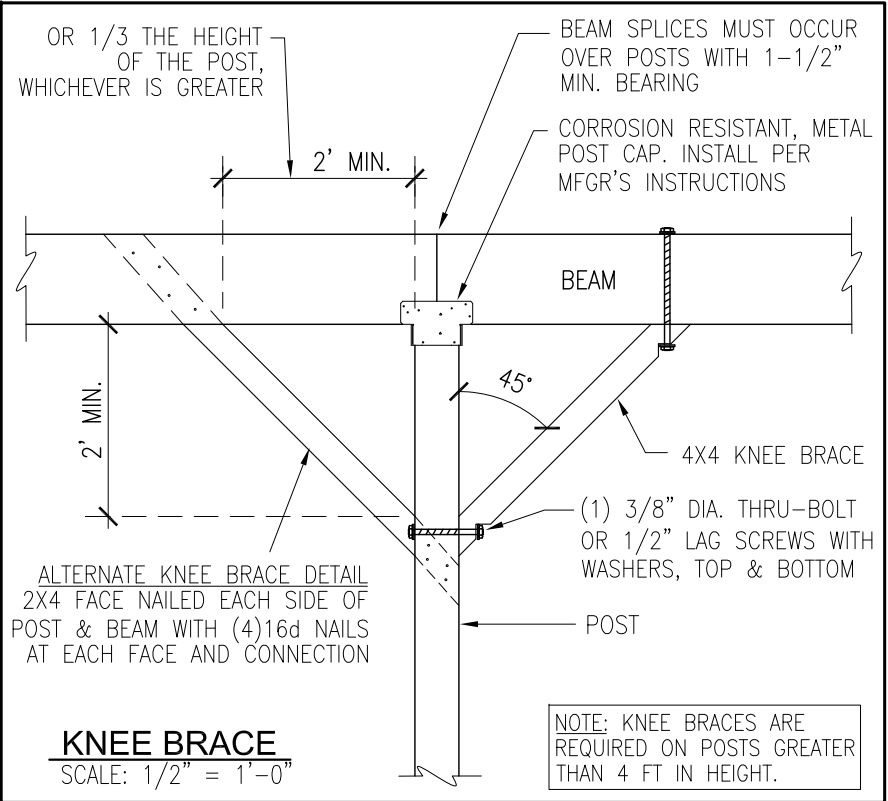
- (a) LAG SCREWS OR BOLTS MUST BE STAGGERED FROM THE TOP AND BOTTOM ALONG THE HORIZONTAL RUN. SEE FIGURE BELOW.
- (b) MAXIMUM 5 INCHES.
- (c) FOR ENGINEERED RIM JOISTS, THE MANUFACTURER'S RECOMMENDATIONS GOVERN.
- (d) THE MINIMUM DISTANCE FROM THE BOTTOM ROW TO THE TOP EDGE OF THE LEDGER MUST BE IN ACCORDANCE WITH FIGURE BELOW.
- (e) THE 2 INCHES MAY BE REDUCED TO 3/4" INCH WHEN THE BAND JOIST IS DIRECTLY SUPPORTED BY A MUDSILL, A HEADER OR BY DOUBLE TOP WALL PLATES

**DECK LEDGER CONNECTION TO BAND JOIST<sup>a, b</sup>**  
(STATE AMENDMENT LIVE LOAD OF 60 PSF)

CONNECTION DETAILS	JOIST SPAN						
	6' and less	6'1" - 8'	8'1" - 10'	10'1" - 12'	12'1" - 14'	14'1" - 16'	16'1" - 18'
	ON-CENTER SPACING OF FASTENERS						
1/2" DIA. LAG SCREW WITH 1/2" MAX. SHEATHING <sup>c, d</sup>	22	16	13	11	9	8	7
1/2" DIA. BOLT WITH 1/2" MAX. SHEATHING <sup>d</sup>	30	22	18	15	13	11	10
1/2" DIA. BOLT WITH 1" MAX. SHEATHING <sup>e</sup>	26	19	16	13	11	10	9

- (a) LEDGERS SHALL BE FLASHED IN ACCORDANCE WITH SECTION R703.4 TO PREVENT WATER FROM CONTACTING THE HOUSE BAND JOIST.
- (b) SNOW LOAD SHALL NOT BE ASSUMED TO ACT CONCURRENTLY WITH LIVE LOAD.
- (c) THE TIP OF THE LAG SCREW SHALL FULLY EXTEND BEYOND THE INSIDE FACE OF THE BAND JOIST.
- (d) SHEATHING SHALL BE WOOD STRUCTURAL PANEL OR SOLID SAWN LUMBER.
- (e) SHEATHING SHALL BE PERMITTED TO BE WOOD STRUCTURAL PANEL, GYPSUM BOARD, FIBERBOARD, LUMBER OR FOAM SHEATHING. UP TO 1/2-INCH THICKNESS OF STACKED WASHERS SHALL BE PERMITTED TO SUBSTITUTE FOR UP TO 1/2-INCH OF ALLOWABLE SHEATHING THICKNESS WHERE COMBINED WITH WOOD STRUCTURAL PANEL OR LUMBER SHEATHING.

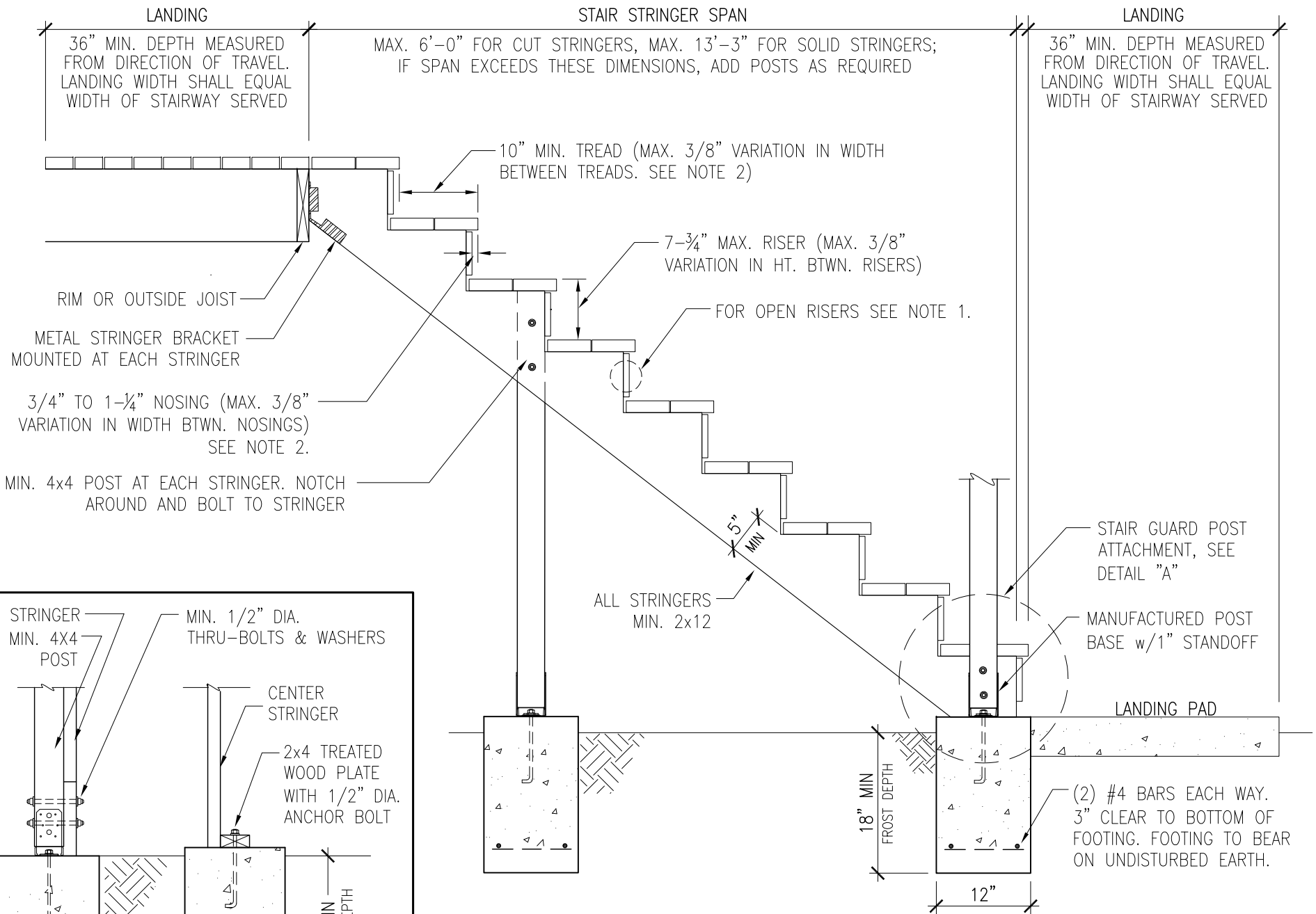




**GUARD POST NOTES**

- 1) GUARDRAILS ARE REQUIRED WHEN THE DECK IS MORE THAN 30 INCHES ABOVE GRADE.
- 2) USE DETAILS ON THIS SHEET FOR GUARD CONNECTIONS OR PROVIDE ENGINEERED DESIGN THAT SHOWS GUARDS CAN RESIST A SINGLE CONCENTRATED LOAD OF 200 LBS APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP AND HAVE ATTACHMENT DEVICES AND SUPPORTING STRUCTURE TO TRANSFER THIS LOAD TO APPROPRIATE STRUCTURAL ELEMENTS OF THE BUILDING PER IBC SEC. 1607.7.1.1.

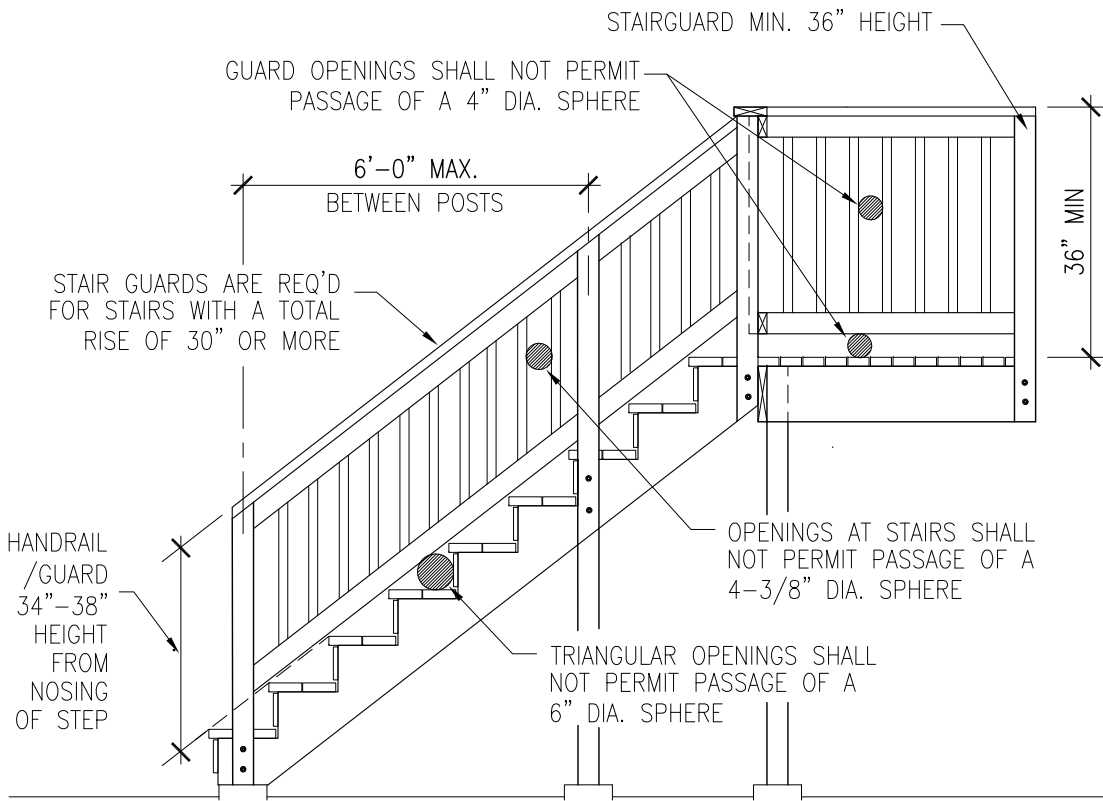
**6** **GUARD POST, GUARDRAIL & KNEE BRACE FRAMING**



**STAIR NOTES**

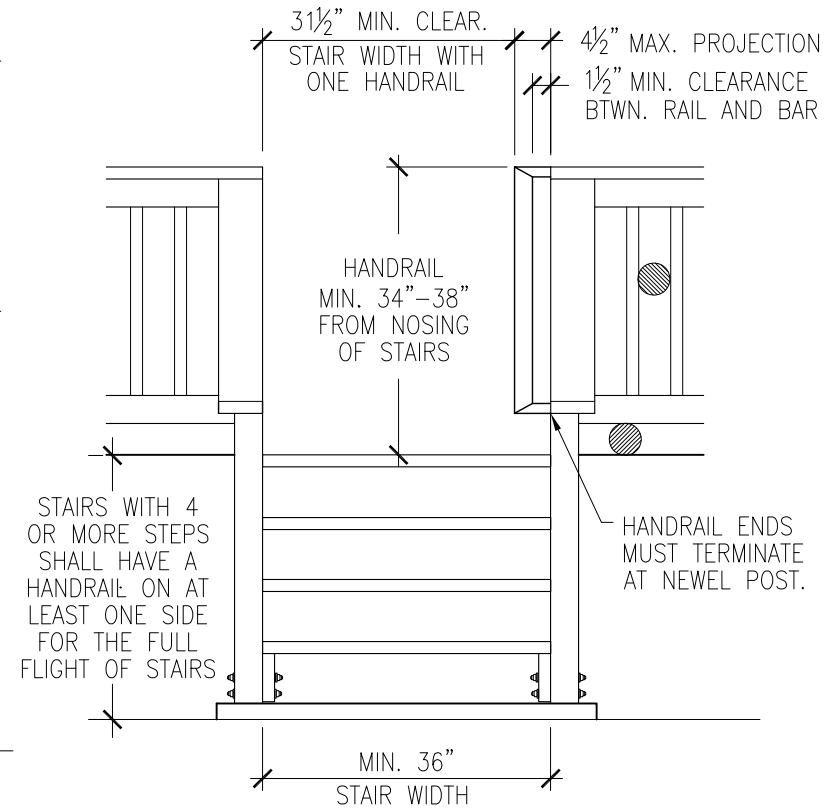
- 1) OPEN RISERS ARE PERMITTED PROVIDED THAT THE OPENINGS LOCATED MORE THAN 30" ABOVE FLOOR OR GRADE DO NOT PERMIT THE PASSAGE OF A 4" DIAMETER SPHERE (R311.7.5).
- 2) A NOSING PROJECTION IS NOT REQUIRED WHERE TREAD DEPTH IS NOT LESS THAN 11" (R311.7.5.3).
- 3) TREADS AND LANDINGS OF STAIRWAYS SHALL BE SLOPED NOT STEEPER THAN ONE UNIT VERTICAL IN 48 INCHES HORIZONTAL (2% SLOPE)(R311.7.7)
- 4) EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH ILLUMINATION (R303.8).

**7 EXTERIOR STAIRS**  
IRC SEC. R311.7



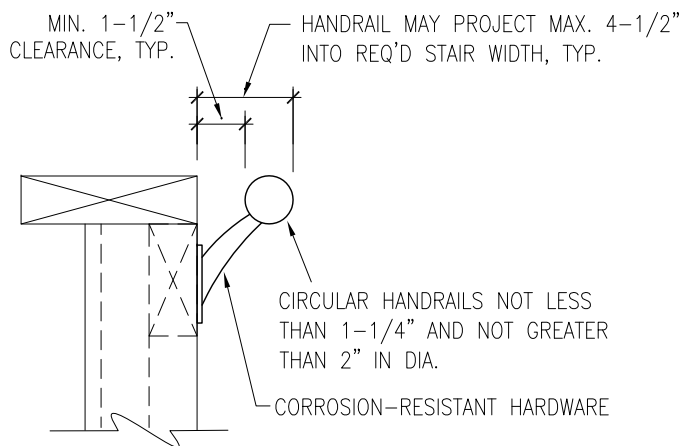
**STAIR GUARD REQUIREMENTS**

IRC SEC. R312

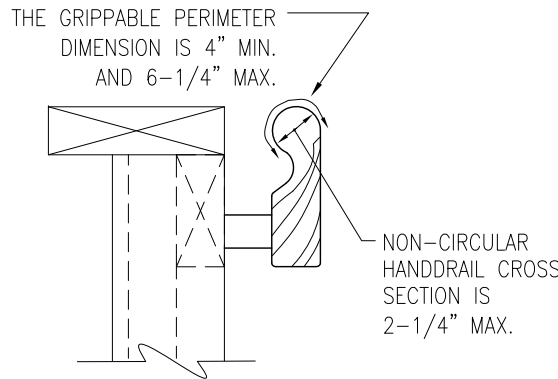


**STAIR & HANDRAIL**

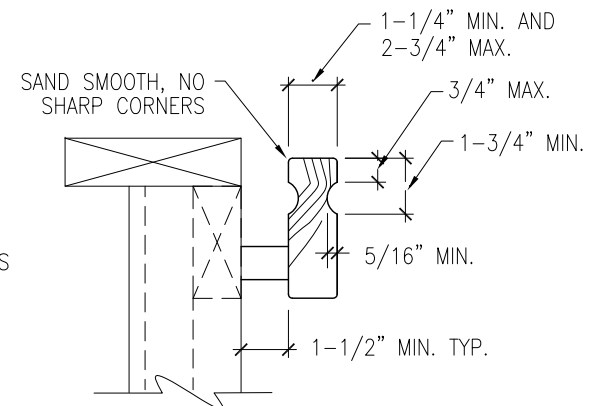
IRC R311.7 - R311.7.8



**TYPE I HANDRAIL**



**TYPE I HANDRAIL**



**TYPE II HANDRAIL**

(HANDRAILS WITH PERIMETER GREATER THAN 6-1/4")

**8 | STAIR HANDRAILS & GUARD**  
IRC R311.7.8